

7. APPENDIXS

Appendix 1. Color Intensity

a* Value of Surface

Tests of Normality

temp_concentration		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
a_value	0%_0min	.244	12	.048	.929	12	.373
	0%_10min	.297	12	.005	.815	12	.014
	0%_20min	.158	12	.200*	.953	12	.683
	0%_30min	.264	12	.020	.817	12	.015
	10%_0min	.161	12	.200*	.923	12	.309
	10%_10min	.230	12	.080	.849	12	.036
	10%_20min	.284	12	.008	.848	12	.035
	10%_30min	.146	12	.200*	.984	12	.995
	20%_0min	.192	12	.200*	.903	12	.175
	20%_10min	.252	12	.034	.923	12	.310
	20%_20min	.163	12	.200*	.921	12	.293
	20%_30min	.249	12	.039	.853	12	.040

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

a_value

Duncan^a

temp_concentration		Subset for alpha = .05									
		1	2	3	4	5	6	7	8	9	10
0%_10min	12	-1.3925									
0%_20min	12		-.7683								
0%_30min	12		-.7125								
0%_0min	12			.2433							
10%_30min	12				17.9650						
10%_20min	12				18.0358						
10%_10min	12					19.2058					
10%_0min	12						21.7867				
20%_30min	12							22.7950			
20%_20min	12								23.3850		
20%_10min	12									23.7650	
20%_0min	12										25.7008
Sig.		1.000	.752	1.000	.689	1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 12.000.

a* Value of Bottom

Tests of Normality

temp_concentration		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
a_down	0%_0min	.154	12	.200*	.902	12	.171
	0%_10min	.308	12	.002	.789	12	.007
	0%_20min	.254	12	.031	.832	12	.022
	0%_30min	.333	12	.001	.791	12	.007
	10%_0min	.098	12	.200*	.978	12	.972
	10%_10min	.228	12	.086	.857	12	.044
	10%_20min	.181	12	.200*	.947	12	.587
	10%_30min	.249	12	.038	.858	12	.046
	20%_0min	.236	12	.065	.864	12	.054
	20%_10min	.240	12	.054	.897	12	.145
	20%_20min	.353	12	.000	.761	12	.003
	20%_30min	.244	12	.047	.868	12	.061

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

a_down

Duncan^a

temp_concentration	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
0%_20min	12	-.8283								
0%_10min	12	-.3808								
0%_0min	12		.2333							
0%_30min	12		.3408							
10%_30min	12			7.4842						
20%_30min	12				11.8933					
10%_20min	12					12.4792				
20%_20min	12						15.9958			
10%_10min	12							17.2625		
20%_10min	12								21.2833	
10%_0min	12								21.3342	
20%_0min	12									23.3392
Sig.		.107	.697	1.000	1.000	1.000	1.000	1.000	.854	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 12.000.

L* Value of Surface

Tests of Normality

temp_concentration	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
L_value 0%_0min	.189	12	.200*	.952	12	.673
0%_10min	.176	12	.200*	.936	12	.444
0%_20min	.186	12	.200*	.877	12	.081
0%_30min	.149	12	.200*	.927	12	.347
10%_0min	.125	12	.200*	.948	12	.609
10%_10min	.237	12	.062	.868	12	.061
10%_20min	.228	12	.085	.861	12	.050
10%_30min	.203	12	.187	.909	12	.208
20%_0min	.177	12	.200*	.970	12	.912
20%_10min	.217	12	.124	.862	12	.052
20%_20min	.138	12	.200*	.973	12	.940
20%_30min	.117	12	.200*	.955	12	.708

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

L_value

Duncan^a

temp_concentration	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
10%_0min	12	38.4417								
20%_0min	12		40.0417							
20%_10min	12			52.8533						
20%_20min	12				56.1525					
20%_30min	12					58.0558				
10%_10min	12					58.7658				
10%_20min	12						63.5217			
10%_30min	12							64.5017		
0%_0min	12								66.0600	
0%_10min	12									74.7408
0%_20min	12									78.9475
0%_30min	12									79.4825
Sig.		1.000	1.000	1.000	1.000	.091	1.000	1.000	1.000	.201

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 12.000.

L* Value of Bottom

Tests of Normality

temp_concentration		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
L_down	0%_0min	.189	12	.200*	.952	12	.673
	0%_10min	.226	12	.092	.903	12	.171
	0%_20min	.198	12	.200*	.924	12	.324
	0%_30min	.172	12	.200*	.874	12	.073
	10%_0min	.341	12	.000	.774	12	.005
	10%_10min	.196	12	.200*	.877	12	.081
	10%_20min	.306	12	.003	.813	12	.013
	10%_30min	.213	12	.141	.846	12	.033
	20%_0min	.239	12	.056	.836	12	.025
	20%_10min	.230	12	.078	.862	12	.051
	20%_20min	.174	12	.200*	.946	12	.580
	20%_30min	.326	12	.001	.676	12	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

L_down

Duncan^a

temp_concentration		Subset for alpha = .05						
		1	2	3	4	5	6	7
20%_30min	12	33.8475						
20%_0min	12	38.2825						
10%_0min	12		44.0192					
20%_10min	12		45.6633					
10%_10min	12			51.9708				
20%_20min	12			55.3883	55.3883			
10%_20min	12				60.2942	60.2942		
10%_30min	12					62.6558	62.6558	
0%_0min	12					66.0600	66.0600	
0%_10min	12						67.0433	67.0433
0%_20min	12							71.9075
0%_30min	12							72.3275
Sig.		.115	.558	.224	.082	.052	.141	.076

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 12.000.

Appendix 2. Textur (hardness)

Tests of Normality

suhu_konsentrasi		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
hardness	0%_0min	.248	6	.200*	.806	6	.067
	0%_10min	.192	6	.200*	.900	6	.372
	0%_20min	.310	6	.074	.833	6	.115
	0%_30min	.166	6	.200*	.944	6	.688
	10%_0min	.257	6	.200*	.911	6	.443
	10%_10min	.259	6	.200*	.771	6	.032
	10%_20min	.227	6	.200*	.891	6	.321
	10%_30min	.254	6	.200*	.886	6	.300
	20%_0min	.213	6	.200*	.974	6	.919
	20%_10min	.271	6	.191	.887	6	.300
	20%_20min	.261	6	.200*	.830	6	.108
	20%_30min	.366	6	.012	.738	6	.015

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

hardness

Duncan^a

suhu_konsentrasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
0%_0min	6	40.7128								
10%_0min	6	41.2002								
20%_0min	6	41.3028								
20%_10min	6		103.8655							
10%_10min	6			172.3783						
0%_10min	6				233.7850					
10%_20min	6				234.7933					
20%_20min	6					304.4200				
0%_20min	6						345.1167			
0%_30min	6							477.2117		
10%_30min	6								639.8267	
20%30min	6									683.8350
Sig.		.968	1.000	1.000	.941	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Appendix 3. Water Content

Correlations

		TBA	watercontent
TBA	Pearson Correlation	1	.732**
	Sig. (2-tailed)		.001
	N	16	16
watercontent	Pearson Correlation	.732**	1
	Sig. (2-tailed)	.001	
	N	16	16

**. Correlation is significant at the 0.01 level (2-tailed).

Water_content

Duncan^a

suhu_konsentrasi	N	Subset for alpha = .05											
		1	2	3	4	5	6	7	8	9	10	11	12
20%30min	4	2.3500											
10%_30min	4		2.7150										
0%_30min	4			2.9650									
20%_20min	4				3.9200								
10%_20min	4					4.7425							
0%_20min	4						5.3075						
20%_10min	4							6.8278					
10%_10min	4								9.1000				
0%_10min	4									10.4750			
20%_0min	4										10.8975		
10%_0min	4											13.1750	
0%_0min	4												14.9475
Sig.		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

Appendix 4. Betacyanins Content

Tests of Normality

konsentrasi_lamaoven		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
betacyanin_538	0%_0min	.180	6	.200*	.920	6	.505
	0%_10min	.319	6	.056	.683	6	.004
	0%_20min	.407	6	.002	.640	6	.001
	0%_30min	.199	6	.200*	.910	6	.439
	10%_0min	.256	6	.200*	.870	6	.226
	10%_10min	.259	6	.200*	.865	6	.206
	10%_20min	.245	6	.200*	.920	6	.506
	10%_30min	.233	6	.200*	.836	6	.120
	20%_0min	.402	6	.003	.700	6	.006
	20%_10min	.228	6	.200*	.906	6	.408
	20%_20min	.226	6	.200*	.912	6	.452
	20%_30min	.285	6	.140	.752	6	.021

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

betacyanin_538

Duncan^a

konsentrasi_lamaoven	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
0%_30min	6	2.5383							
0%_20min	6	2.6000							
0%_10min	6	2.6150							
0%_0min	6	2.6300							
10%_30min	6		3.6367						
10%_20min	6			4.0017					
10%_10min	6			4.1433					
20%_30min	6				4.5083				
10%_0min	6					5.0733			
20%_20min	6						5.4850		
20%_10min	6							6.1733	
20%_0min	6								9.0317
Sig.		.542	1.000	.296	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Correlation Between A* Value And Betacyanin

Correlations

		A_v value	betacyanin_538
A_v value	Pearson Correlation	1	.798**
	Sig. (2-tailed)		.000
	N	72	72
betacyanin_538	Pearson Correlation	.798**	1
	Sig. (2-tailed)	.000	
	N	72	72

** . Correlation is significant at the 0.01 level (2-tailed).

Appendix 5. Betaxanthin Content

Tests of Normality

konsentrasi_lamaoven		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
betaxhantin_480	0%_0min	.299	6	.102	.773	6	.033
	0%_10min	.319	6	.056	.683	6	.004
	0%_20min	.319	6	.056	.683	6	.004
	0%_30min	.298	6	.104	.823	6	.093
	10%_0min	.262	6	.200*	.849	6	.155
	10%_10min	.217	6	.200*	.951	6	.748
	10%_20min	.349	6	.021	.824	6	.095
	10%_30min	.269	6	.198	.813	6	.077
	20%_0min	.206	6	.200*	.910	6	.438
	20%_10min	.237	6	.200*	.901	6	.381
	20%_20min	.319	6	.056	.683	6	.004
	20%_30min	.207	6	.200*	.852	6	.162

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

betaxhantin_480

Duncan^a

konsentrasi_lamaoven		Subset for alpha = .05					
		1	2	3	4	5	6
0%_30min	6	.1050					
0%_20min	6	.2250	.2250				
0%_10min	6		.2900				
0%_0min	6		.3133				
10%_30min	6			1.0833			
10%_20min	6			1.0917			
10%_10min	6			1.1667			
20%_30min	6				1.6033		
10%_0min	6				1.7000		
20%_20min	6					1.8950	
20%_10min	6					1.9167	
20%_0min	6						3.2517
Sig.		.157	.326	.355	.253	.797	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Appendix 6. Antioxidant

Tests of Normality

bakingtime_concentration		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
antioxidan	0%_0min	.318	6	.058	.833	6	.114
	0%_10min	.239	6	.200*	.936	6	.627
	0%_20min	.261	6	.200*	.939	6	.654
	0%_30min	.168	6	.200*	.960	6	.823
	10%_0min	.296	6	.108	.906	6	.412
	10%_10min	.199	6	.200*	.913	6	.459
	10%_20min	.207	6	.200*	.884	6	.290
	10%_30min	.229	6	.200*	.903	6	.394
	20%_0min	.215	6	.200*	.906	6	.409
	20%_10min	.234	6	.200*	.885	6	.293
	20%_20min	.252	6	.200*	.843	6	.138
	20%_30min	.185	6	.200*	.906	6	.413

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

antioxidan

Duncan^a

bakingtime_concentration	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
0%_30min	6	2.0588						
0%_20min	6	2.1238						
0%_10min	6	2.3747						
0%_0min	6	2.3932						
10%_30min	6		3.1189					
10%_20min	6			3.6561				
20%_30min	6				4.4930			
20%_20min	6					5.0444		
10%_10min	6					5.0940		
10%_0min	6					5.2993		
20%_10min	6						5.9151	
20%_0min	6							8.7289
Sig.		.208	1.000	1.000	1.000	.320	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Correlation Between Antioxidant and Betalain

Correlations

		betaxhantin_480	betacy anin_538	Antioxidan
betaxhantin_480	Pearson Correlation	1	.968**	.946**
	Sig. (2-tailed)		.000	.000
	N	72	72	72
betacy anin_538	Pearson Correlation	.968**	1	.957**
	Sig. (2-tailed)	.000		.000
	N	72	72	72
Antioxidan	Pearson Correlation	.946**	.957**	1
	Sig. (2-tailed)	.000	.000	
	N	72	72	72

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 7. TBA Value

Tests of Normality

time_concentration		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
TBA	0hari_0%	.154	6	.200*	.976	6	.930
	4hari_0%	.173	6	.200*	.930	6	.579
	8hari_0%	.286	6	.137	.827	6	.101
	12hari0%	.173	6	.200*	.943	6	.685
	16hari_0%	.307	6	.080	.867	6	.215
	0hari_10%	.250	6	.200*	.886	6	.296
	4hari_10%	.284	6	.143	.830	6	.108
	8hari_10%	.219	6	.200*	.896	6	.348
	12hari_10%	.212	6	.200*	.872	6	.233
	16hari_10%	.187	6	.200*	.963	6	.845
	0hari_20%	.173	6	.200*	.941	6	.669
	4hari_20%	.182	6	.200*	.926	6	.549
	8hari_20%	.205	6	.200*	.916	6	.479
	12hari_20%	.249	6	.200*	.933	6	.601
	16hari_20%	.252	6	.200*	.911	6	.445

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Post Hoc One Way Anova

TBA

Duncan^a

time_concentration		Subset for alpha = .05						
		1	2	3	4	5	6	7
0hari_20%	6	.1478						
0hari_0%	6	.1490						
0hari_10%	6	.1541	.1541					
4hari_20%	6		.1616	.1616				
4hari_10%	6			.1664	.1664			
8hari_20%	6				.1711	.1711		
12hari_20%	6				.1729	.1729		
8hari_10%	6					.1775	.1775	
4hari_0%	6					.1780	.1780	
8hari_0%	6					.1802	.1802	
12hari_10%	6					.1809	.1809	
12hari0%	6						.1830	
16hari_20%	6						.1836	
16hari_10%	6						.1875	.1875
16hari_0%	6							.1954
Sig.		.173	.093	.272	.162	.050	.050	.074

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.